

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	98	(trench with isolation) and (substrate with (single adj silicon))	US-PGPUB; USPAT	OR	ON	2005/03/03 14:43
L2	2008	(trench with isolation) and (substrate with (single adj crystal))	US-PGPUB; USPAT	OR	ON	2005/03/03 14:28
L3	94	1 and @ad<"20031031"	US-PGPUB; USPAT	OR	ON	2005/03/03 14:28
L4	1428	(trench with isolation) and (substrate with (single adj crystal adj silicon))	US-PGPUB; USPAT	OR	ON	2005/03/03 14:28
L5	1332	4 and @ad<"20031031"	US-PGPUB; USPAT	OR	ON	2005/03/03 14:43
L6	199	5 and (lining or liner)	US-PGPUB; USPAT	OR	ON	2005/03/03 14:44
L7	1428	(trench with isolation) and (substrate with (single adj crystal adj silicon))	US-PGPUB; USPAT	OR	ON	2005/03/03 14:43
L8	184	7 and @ad<"20031031" and (rounded or rounding or tapered or tapering)	US-PGPUB; USPAT	OR	ON	2005/03/03 14:44
L9	142	8 not 6	US-PGPUB; USPAT	OR	ON	2005/03/03 14:44
L10	137	9 not 3	US-PGPUB; USPAT	OR	ON	2005/03/03 14:44

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	RIE with scallops	US-PGPUB; USPAT	OR	ON	2005/03/03 11:54
L2	3	RIE same scallops	US-PGPUB; USPAT	OR	ON	2005/03/03 11:57
L3	37	RIE same scallops	USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/03/03 11:55
L4	0	(reactive adj ion adj etching) same scallops	US-PGPUB; USPAT	OR	ON	2005/03/03 11:58
L5	25	(reactive adj ion adj etching) and scallops	US-PGPUB; USPAT	OR	ON	2005/03/03 12:18
L6	1	("6051503").PN.	US-PGPUB; USPAT	OR	OFF	2005/03/03 12:11
L7	276	trench and ((lining or liner or adhesion or adhesive) with TEOS)	US-PGPUB; USPAT	OR	ON	2005/03/03 12:18
L8	263	7 and @ad<"20031031"	US-PGPUB; USPAT	OR	ON	2005/03/03 12:18

US-PAT-NO: 6180493

DOCUMENT-IDENTIFIER: US 6180493 B1

TITLE: Method for forming shallow trench isolation region

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Detailed Description Text - DETX (7):

The second liner layer 212 is formed using a chemical vapor deposition (CVD) method. For example, using tetra-ethyl-ortho-silicate (TEOS) as a gaseous reactant, an atmospheric pressure chemical vapor deposition (APCVD) operation is conducted to form the TEOS silicon oxide liner layer 212. The buffer layer 214 is formed from a material having an oxidation rate that lower than the first insulation layer 216 and the pad oxide layer 202a. Thus, the buffer layer 214 is capable of preventing oxidation on the sidewalls of the trench 208 when densification of the first insulation layer 216 is carried out.

Claims Text - CLTX (17):

3. The method of claim 2, wherein the step of forming the second liner layer includes using tetra-ethyl-ortho-silicate (TEOS) as a gaseous reactant.